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## **CLAIMS**

1) Method of transmitting, over a physical link between a base station and a controller of a telecommunications system, data issuing from a plurality of users in communication with the said base station, the said data being segmented in the form of cells, the said system being designed so that the said cells are sent over the said link at transmission time intervals TTI which are different according to the type to which they belong, characterised in that it consists of using as many queues as there are different types of data which the said telecommunications system can manage, the said queues being fed by cells carrying the said data, each queue being fed by the cells to which the type of data corresponding to the said queue is allocated, the said queues being emptied by time slices with a predetermined duration in the following manner:

at the commencement of each slice, the first non-empty queue, in increasing order of the said time intervals allocated to the said queues, is emptied, then the second non-empty one is emptied, then the third non-empty one, etc, and

at the expiry of the said time slice, the cycle recommences, whatever the state of the said queues.

- 2) Method according to Claim 1, characterised in that the said predetermined duration is equal to a duration at most equal to the smallest time interval in the said system.
- 3) Data transmission method according to Claim 1 or 2, characterised in that it is implemented between the segmentation sublayer of the layer for adaptation to the transportation layer and the common part sublayer of the same layer.